REMARKS

Claims 1, 2 and 6-11 are pending in the above-identified application. Claim 4 has been incorporated into claim 1. Claims 3-5 have been cancelled. Support for new claims 6-11 is found at pages 14-15 of the present specification.

Removal of Title, Abstract and Claim Objections

The title, abstract and claim 4 have been objected to as indicated at pages 2-3 of the Office Action of March 21, 2006. The title has been amended in accordance with the suggestions stated in the Office Action. The abstract has been shortened to an appropriate length. Claim 4 has been cancelled. Thus, all of the bases for these objections have been removed such that the objections should be withdrawn.

Removal of Double Patenting Rejections

Enclosed are copies of the Terminal Disclaimers submitted in connection with this application. The submission of these Terminal Disclaimers removes the bases for the double patenting rejections discussed at pages 3-5 of the Office Action.

Removal of Issues under 35 USC 112

Claims 1-5 have been rejected under 35 USC 112, second paragraph, as allegedly being indefinite for the reasons stated at the bottom of page of the Office Action. Claim 1 has been amended so as to recite only "silica", rather than including the alternative "carbon black". Claim 3 has been cancelled. Thus, the bases for these rejections have been removed such that these rejections should be withdrawn.

Issues under 35 USC 102(b) and 103(a)

Claims 1, 2, 4 and 5 have each been rejected under 35 USC 102(b) as being anticipated by at least one of the following references: Sandstrom '628 (USP 5,489,628), Terakawa '690 (US 5,569,690) and Blythe '021 (US 5,115,021).

At least one of claims 1-5 have additionally been rejected under 35 USC 103(a) in view of at least one of the above-noted references in combination with one of the following references: Tanaka '253 (US 6,239,253) and JP '702 (Japanese Patent Publication 06-329702).

All of the above-noted rejections are traversed based on the following reasons. It is also noted that claims 3-5 have been cancelled.

Present Invention and Its Advantages

The present invention is directed to a tire having a tread formed from a rubber composition which contains the combination of a "deproteinized" form of natural rubber, silica and a silane coupling agent of formula (I), as recited in presently amended claim 1. The employment of this combination of features provides for advantageously improved properties in the areas of processability, rolling resistance, abrasion resistance and/or wet skid performance, as evidenced by the comparative test results summarized in Table 2-7 at pages 26-37 of the present specification.

Distinctions between Present Invention and the Primary References

The cited primary references include Sandstrom '628, Terakawa '690 and Blythe '021. All of these references fail to disclose the use of the particular silane coupling agent of Formula (I) recited in present claim 1. In this regard, it is noted that Sandstrom '628 employs in several examples in Tables II and III at columns 8-9 thereof the silane coupling agent "Si 69". However, as disclosed at page 17, lines 14-15 of the present specification, this silane coupling agent "Si 69" has an average "ℓ" value of 3.8 which is above the upper end point of the range for the "ℓ"

value for the silane coupling agent of Formula (I) employed in the present invention, i.e. 3.5. In addition all of these references fail to disclose or suggest the use of "deproteinized" form of natural rubber. Consequently, significant patentable distinctions exist between the present claims and these references, such that all of the "anticipation" rejections under 35 USC 102(b) must be withdrawn.

Additional Evidence Supporting Patentability

In addition to the above-noted distinctions over the cited primary references, it is further submitted that the comparative test results provided in the present application provide further evidence in support of the patentablility of the present claims. In this regard, note that the use of the silane coupling agent Si 69 occurs in Examples 13, 14, 17 and 18 in Table 4 and 5 at pages 30 and 32 of the present specification consistent with Sandstrom '628. These examples also employ non-deproteinized polymers consistent with Sandstrom '628. Thus, it becomes possible to compare these examples with embodiments of the present invention falling within the presently amended claims including Examples 23, 24, 27 and 28. In this regard, note that the "standard" used in Tables 4-7 differs such that values for the properties must be recalculated in order for appropriate comparisons to be made. In this regard, note attached Tables 8 and 9 which compare each of the Examples 13, 14, 17 and 18 generally corresponding to Sandstrom '628 with each of the embodiments falling within the present claims of Examples 23, 24, 27 and 28. It is clear from these comparisons that the processability properties of Examples 23, 24, 27 and 28 (present invention) are significantly superior to those exhibited for Examples 13, 14, 17 and 18, respectfully, generally corresponding to Sandstrom '628. Therefore, even if Sandstrom '628 is asserted as a basis for alleging prima facie obviousness against the present claims, such obviousness has been rebutted by these comparative test results which establish that the present invention exhibits advantageous, unexpected properties.

In addition to the above, it is submitted that significant patentable distinctions exist over the other cited references, i.e. Tanaka '253 and JP '702. These references are cited in support of the use of a deproteinized natural rubber as one of the elements of the present invention.

However, Tanaka '253 fails to disclose anything in regard to the use of a particular silane coupling agent, and only broadly discloses using deproteinized natural rubber in the field automobile tires along with other widely ranging fields, such as medical equipment, and sporting equipment. Thus, Tanaka '253 fails to specifically suggest the use of deproteinized rubber in the tread portion of a tire.

JP '702 also mentions the use of deproteinized natural rubber generally in the area of tires without specifically disclosing use in the tread portion thereof and without disclosing or suggesting anything regarding the use of a silane coupling agent and silica, as in the present invention.

In addition to the above-noted significant patentable distinctions over the primary references, as well as Tanaka '253 and JP '702, it is further noted that the comparative test results provided in the present application provides still more evidence in support of the patentability of the present claims. In this regard attached Table 10 and 11 show that Examples 23, 24, 27 and 28 (present invention) all exhibit advantageously improved processability properties over Examples 15, 16, 19 and 20 which correspond to the combination of the silane agent Si 69 of Sandstrom '628 and deproteinized natural rubber as mentioned in the Tanaka '253 and JP '702 references. It is submitted that there fails to be any adequate basis to combine any of the primary references (mentioning nothing about deproteinized natural rubber) with either Tanaka '253 or JP '702 (both mentioning nothing with regard to the use of any particular silane coupling agent or a specific application of a tire "tread"). However, even if such a hypothetical combination of these references is assumed, the evidence of unexpected, advantageously improved proccessability shown in Tables 10 and 11 would rebut an allegation of prima facie obviousness based on such a hypothetical combination. Consequently, significant patentable distinctions exist between the present invention and all of the cited references, whether taken separately, or improperly combined.

It is submitted for the reasons above that the present claims define patentable subject matter such that this application should now be placed in condition for allowance.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: July 20, 2006

Respectfully submitted,

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Enclosures: Tables 8-11

TABLE 8

	Ex.				Com. Ex.
	13	23	14	24	7
Properties					
Processability	102	112	101	110	100
Rolling Resistance	103	104	102	103	100
Abrasion Resistance	101	101	102	102	100
Wet Skid Performance	102	102	104	105	100

compared compared the standard

TABLE 9

	Ex.				Com. Ex.
	17	27	18	28	10
Properties					
Processability	103	113	102	111	100
Rolling Resistance	103	103	102	102	100
Abrasion Resistance	102	101	103	102	100
Wet Skid Performance	104	104	106	106	100

compared compared the standard

TABLE 10

	Ex.				Com. Ex.
	15	23	16	24	7
Properties					
Processability	104	112	103	110	100
Rolling Resistance	105	104	104	103	100
Abrasion Resistance	100	101	101	102	100
Wet Skid Performance	103	102	106	105	100

compared compared the standard

TABLE 11

	Ex.				Com. Ex.
	19	27	20	28	10
Properties					
Processability	104	113	103	111	100
Rolling Resistance	105	103	104	102	100
Abrasion Resistance	101	101	102	102	100
Wet Skid Performance	106	104	108	106	100

compared compared the standard